PTO/SB/68 (09-06) Approved for use through 3/31/2007. OMB 0651-0031

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Telephone Number



United States Patent [19]

Boyle et al.

[11] Patent Number: 5,654,407

Date of Patent:

Aug. 5, 1997

[54] HUMAN ANTI-TNF ANTIBODIES

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[21] Appl. No.: 435,246

[22] Filed: May 5, 1995

Related U.S. Application Data

Continuation of Ser. No. 145,060, Oct. 29, 1993, abandoned, which is a continuation-in-part of Sers No. 26 957, Mar. 5,

[51] Int. Cl. 6 C07K 16/24

U.S. Cl. 530/388.15; 424/142.1; 424/145.1; 424/158.1; 435/335; 530/388.23;

530/388.24

Field of Search 424/142.1, 145.1, 424/158.1; 435/70.21, 172.2, 335; 530/388.15, 388.23, 388.24, 389.2

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Human monoclonal antibodies (mAbs) which bind to human $TNF\alpha$ are disclosed. Autoantibodies of both the IgM and IgG isotypes are disclosed. A preferred human monoclonal antibody is known as B5 (F78-1A10-B5 mAb) and it binds to recombinant human TNFa (rhTNFa) in ELISA format with a titer comparable to three high affinity neutralizing mouse mAbs. It also binds to cell surface TNFα and prevents TNFa secretion by human monocyte cell lines.

ABSTRACT

12 Claims, 11 Drawing Sheets